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ABSTRACT

A study examined present agricultural education programs in Grenada and made recommendations for needed improvements. Data for the evaluation were obtained from numerous documents and publications, field trips, and discussions with key officials in various ministries and institutions, including the Ministry of Agriculture, Ministry of Education, Technical and Vocational Institute, Institute for Further Education, and Food and Nutrition Council. The data collected from these sources indicated that there is an urgent need to strengthen the agricultural education program in Grenada. Particularly needed is a strong basic education program in the primary schools, including instruction in mathematics and science, as a foundation for strong agricultural education programs. The development of curricula and syllabi for teaching agriculture at these levels should be the country's top priority. Also vital are the preparation for agriculture teachers and the establishment and government support of 14 proposed agricultural education centers. Staff supervising agricultural science programs should hold bachelor of science degrees in agricultural education, and teacher workshops should be provided on a regular basis. (Appendixes to this report include a listing of documents reviewed by the researcher, data on present staffing and training needs in Grenada, and selected information concerning educational institutions and enrollment in them.) (MN)

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A report on:

DEVELOPMENT AND STRENGTHENING OF AGRICULTURAL EDUCATION IN GRENADA

ED262276

(A study conducted during October-November 1984 at the request of the Caribbean Agricultural Extension Project in cooperation with the Ministry of Agriculture and the Ministry of Education.)

by

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"One fact, therefore is clear: if provisions for education and training of nationals of any country is not built into every project, not included as an integral part of every plan, not taken for granted as a part of every step forward, the ultimate goals can never be reached."

(p. 12. Education and Agricultural Development, by FFHC, UNESCO, 1964)

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OBSERVATIONS AND RECOMMENDATIONS FOR IMPROVING AGRICULTURAL EDUCATION IN GRENADA

Introduction

The Consultant's assignment was to review the present agricultural education programmes, determine the needs for improving the programmes, and to make recommendations for improving the programmes. Discussions were held and observations were made during the period October 29 - November 2, 1984.

Discussions were held with key Officials in the following ministries and institutions:

Ministry of Agriculture
Ministry of Education
Technical and Vocational Institute
Institute for Further Education
Teacher's College
Mirabeau Agricultural Training School
St. Patrick's R.C. Primary School
Food and Nutrition Council

Field trips were made to the Mirabeau Agricultural Training School and to St. Patrick's R.C. Primary School.

Valuable information was secured from numerous publications which were made available to the Consultant. Several of the key documents were:

1. Final Report on Grenada Agricultural Census, 1981
2. Help Yourself: A Career Guidance Booklet

3. Grenada School Directory and Educational Statistics 1982-1983.

4. Training Needs in Agriculture in the Leeward and Windward Islands by J.E. Edmunds, 1983

5. "National In-Service Teacher Education Programme: Agricultural Science", by Faculty of Agriculture, Teacher's College.

6. "A Proposal for the Establishment of Agricultural Training Centres throughout Grenada." Ministry of Education, 1983-1984.

7. Trained Manpower Needs in the Agricultural Sector Leeward and Windward Islands by T.H. Henderson, 1976.

8. Education and Agricultural Development by Freedom From Hunger Campaign, UNESCO.

9. World Development Report 1982 by World Bank, 1982.

See Appendix A for a complete listing of sources.

Agricultural Development and Education

The linkage between agricultural development and education can be made more easily as a set of concepts than it can be in practice. It is easier to talk or write about the relationship between education and agricultural development than it is to get the policies and practices of two separate ministries, the Ministry of Education and the Ministry of Agriculture, to reflect that relationship or linkage.

Agricultural education programmes depend upon the linkage for overall effectiveness. The agricultural education programmes, as a total set of formal and nonformal education programmes, are linked, conceptually, to the administrative systems of education and agriculture. In Grenada the formal agricultural education programmes in primary schools, secondary schools, and the

teachers' college are administered by the Ministry of Education. The formal agricultural education program at the Mirabeau Agricultural Training School (MATS) and the nonformal agricultural extension programme are administered by the Ministry of Agriculture.

The various agricultural education programmes should be viewed, not as individual programmes, but as part of a system. Each programme makes its contribution to the system. The agricultural education programmes, as a system, have their special roles to play in the achievement of societal goals for human resource development and for agricultural development. In other words, the societal goals for agricultural development have to be implemented through many programmes, and one of the essential elements to be considered for implementation should be the agricultural education system.

The societal goals for education, the formal schooling, can be achieved, in part, by an effective agricultural education system with instruction in agriculture at the primary, secondary, and tertiary levels. In total, the agricultual education system (including the nonformal agricultural education programme) contributes a specialized education to the human resource development.

The agricultural education system is the primary basis for development of the skilled, technical, and professional persons, the human resources, needed to have a strong agricultural sector. The secondary schools may contribute to the development of interests and abilities of teenagers to have careers in

agriculture. They may enter the agricultural sector directly from school or, if qualified, pursue further education before entering as technicians or professionals. An effective agricultural education programme in secondary schools can contribute to elimination of the existing shortage of persons familiar with improved technology for aricultural development.

The strength of the agricultural education system is dependent, in part, upon the quantity and quality of the basic education programmes. The primary school should provide students with competencies in mathematics, science and language upon which additional schooling may build.

The strength of the agricultural education system is dependent in part, upon the professional qualifications of the teachers who are responsible for the instruction. Those teachers must know the appropriate technology, be able to communicate effectively, and be able to adapt the instructional methodologies to cultural and local realities for agriculture in Grenada.

The strength of the agricultural education system is dependent, in part, upon the goals, policies and priorities which a nation has for its agricultural development. The appropriate coordination of those goals, policies and priorities with the instructional programmes in the various levels of schools, provides additional strength to the agricultural education system. For example, if one of the goals for agriculture is the introduction and use of small scale tractors (tillers) to assist with timely preparation of seed beds, a low interest loan

programme might be tied to a farm power course (operation, maintenance, and service) in order to encourage farmers to purchase such tillers, perhaps on a cooperative basis. The educational system may have prepared the teachers of agricultural mechanics, and provided the school facilities, used for secondary students, for the farmer training.

Summary of Observations and Discussions

The many persons with whom discussions were held regarding agricultural education, were helpful with their expression of present situations and needs for improving the programmes.. The following are a summary of those discussions and observations.

A. Agriculture

1. Agriculture is vital to the economy of Grenada. It contributes much, perhaps about 40 percent, to the gross domestic product; and it provides employment for approximately 20 percent of the labour force.
2. The average size farm is less than five acres (5.8 acres for full-time farmers). Approximatley 80 percent of the farmers own 20 percent of the farmland. Approximately 90 percent of the farmers have 5 acres or less of land.
3. There are many on-going projects for improving agriculture such as developing the infrastructure (especially roads), increasing livestock production, soils testing, developing an integrated pest control programme, rehabilitation of tree crops, soil

conservation and others.

4. There are other projects, either on-going or planned, which will seek to strengthen the agricultural marketing and cooperatives, develop a land use inventory, provide veterinary services for animal health, watershed management, improving the quality and quantity of bananas, and others.
5. There are shortages of qualified agriculturalists to fill positions. (See appendix B).

B. Education

1. There are five persons in the Ministry of Education with responsibility for supervision of agricultural education in the 57 primary schools, 4 junior secondary schools and 17 senior secondary schools (there are 7 private primary and 3 private secondary schools). In addition to the supervisory duties, the five persons are assigned to the Teachers' College to teach the agricultural courses to both the resident students and the in-service teachers.
2. In-service workshops on agricultural education are conducted during holidays for primary school teachers. For example, a five-day workshop was conducted in August, 1984 for 52 teachers.
3. High priority needs which were identified included:
   (a) Upgrading the staff in MOE responsible for agricultural education.

(b) Upgrade to diploma level the teachers of agriculture in the secondary schools.

(c) Upgrade the teachers in primary schools through in-service programmes (both part-time and full-time).

(d) Provision of land for students to be involved in learning to do by doing.

(e) Preparation and distribution of instructional materials for teachers of agriculture.

(f) Have secondary schools equipped and staffed to teach the CXC syllabus in agriculture.

4. The teaching of agriculture is compulsory in the primary schools. The primary schools are all-age schools which include Infants (2 years), Standards I-V (5 years) and Forms I-III (3 years).

5. Primary schools are faced with several problems for effective teaching of agriculture: lack of land, lack of security around the land, and teachers with little or no training in agriculture.

6. Secondary schools lack qualified teachers; have insuffiient land and equipment; and lack facilities and equipment for teaching animal production and management.

7. During the past three years, eight schools have contributed from 75-98% of the PASSES on the G.C.E. "0" Levels in Agriculture: 75 of 86 passes in 1984; 103 of 105 passes in 1983; and 43 of 57 passes in 1982. (See Appendix C for additional information.)

8. The Primary School Leaving Examination now inlcudes a

section on agriculture. In 1984, there were entries from 42 primary and junior secondary schools. The average pass rate was about 40 percent while four schools has pass rates of 98%, 98%, 73% and 68%.

9. A proposal has been prepared for the development of a series of Agricultural Teaching Centres to serve as centralized sites for students to get practical experiences with crops and livestock. These Centres could serve both all-age primary schools and senior secondary schools. Such an effort would be started with one pilot centre.

10. The needs for upgrading of teachers in the schools, includes a need for 20 teachers at the Diploma Level for secondary schools, at least 54 teachers at the Certificate Level as lead teachers in primary schools and eventually, 14 teachers (one each) for the proposed Agricultural Teaching Centres.

11. Instructional materials are needed for the schools: textbooks, laboratory equipment, audio visual equipment, leaflets, etc. Someone is needed to coordinate the development and distribution of instructional materials.

12. The Food and Nutrition Council has funded some projects through the schools with emphasis on schools gardens to produce vegetables for use in the schools' feeding programme and to sell the surplus.

13. Praedial larceny is a major problem for schools and for

farmers. It appears to be a general societal problem.

14. There has been a decline in total number of students enrolled in Grenada schools during the past eleven years. (For additional information see Appendix D).

15. The total number of students enrolled in senior secondary schools on June 30, 1982 included over 4,000 students (4,232) of which 68 percent were female.

16. Agricultural skills will be one part of a programme aimed at skill development (as part of an adult literacy programme).

17. The Grenada Technical and Vocational Institute (GTVI) initiated a programme in agricultural mechanics in 1982, but it was dropped after a very brief time.

18. The Graduates from the GTVI are reported to be very employable, due in part to the curriculum which was developed from the point of view of the "job market requirements" and due to the technically (job) competent instructors.

19. The applicants for admission to the Institute for Further Learning (Potential graduate degree candidates) have not indicated any interest in careers in agriculture.

20. The booklet for student use in career planning (Help Yourself: A Career Guidance Booklet) contains valuable information for students to consider. It lacks information about career opportunities in the fields of agriculture.

21. Most of the principals in the post secondary (tertiary) training institutions had been in their post six (6) months or less.

22. The Teachers' College, closed for the past four years, reopened in the fall of 1984. The one-year full-time programme incudes three terms of agricultural courses. Land is not availavble at the site for student practice with either crops or livestock. (The curriculum followed by the students was not available for review). The five lecturers in agriculture also have primary responsibility for supervision of agricultural instruction in the schools throughout Grenada.

23. Instructional materials needed for agricultural instruction at the Teachers' College include audio-visual equipment, books, bulletins, agricultural journals as well as materials related directly to methods of teaching agriculture at the primary and secondary school levels.

24. The Mirabeau Agricultural Training School (MATS) was established to prepare persons for employment on Government operated and cooperative farms. The plan was for an annual intake of 75 students, 25 of which would be continued the second year. Those continuing for the second year, might be employed by Government, agro-industries, or as teachers in schools.

25. A construction programme at MATS is underway, including

a new office/administration building, student dormitories, classrooms and other facilities with funding from the European Development Fund and other sources. A staff development programme is needed for a core of permanent teaching staff. The present land area of 35 acres is ample for the teaching programme. The present livestock programme includes dairy cattle, swine, and poultry.

26. No data were available regarding the occupational and educational attainments of graduates (completers) of agricultural education programmes at any of the levels (primary, secondary, and tertiary).

Recommendations

There is an urgent need to strengthen the agricultural education programme in Grenada. It is essential to have a strong basic education programme in the primary schools, including mathematics and science, as a foundation for strong agricultural education programmes. The recommendations for strengthening agricultural edcuation are divided into three parts: general, Ministry of Education, and Ministry of Agriculture.

A. General

There is a need to have the primary and secondary schools contribute to both the societal goals of agricultural development and to individual goals for career development.

1. The purpose and objectives for the teaching of agriculture should be more clearly identified in

relation to the overall purposes of the schools at all levels.

2. The goals for the schools and the goals for agricultural development should be considered when developing the curricula and syllabi for teaching agriculture.
3. The objectives for agricultural education should be developed so as to include production, management, marketing, cooperation and leadership.
4. The expected outcomes from the teaching of agriculture should be expressed in terms of people with "competencies to do" rather then in terms of "passes" on examinations.
5. Due to the high demand for agriculturally trained persons and the relatively low supply of Diploma Level persons (in all fields), Grenada needs to prepare at least 20 persons per year to the Diploma Level in agriculture.

B. Ministry of Education

The schools provide a basis for transmitting the culture and heritage of the past, as well as a basis for reshaping and improving society. The schools are the primary basis for human resource development. As such it is recommended that quality basic education through the primary schools is a prerequisite to a strong agricultural education programme.

The presence of a supervisory/teacher education staff for

agricultural education provides a relatively strong basis for further improvements in agricultural education programmes in the primary and secondary schools.

1. The development of curricula and syllabi for teaching agriculture in the primary and secondary schools should be the number one priority. These will provide a common basis for guidelines and decisions about development of the teacher education pogramme, the development of facilities and equipment at the schools, etc.
2. The preparation of teachers of agriculture is the second highest priority for strengthening the teaching of agriculture.
   (a) Teachers of agriculture at the secondary school level, whether in primary or secondary schools, should hold the Diploma in Agriculture. (This refers especially to the teachers for Forms I, II, and III in the all-age primary schools.)
   (b) Head teachers of agriculture for the primary schools should hold the Diploma in Agriculture.
   (c) The primary school teachers (Infants and Standards I-V) should have elective courses in agriculture as part of their teacher preparations.
3. The concept of Agricultural Education Centres (14 proposed) should be supported as a major means of providing more effective instruction in agriculture. More guidelines are needed in the plan for the

development of the concept before implementation. For example, guidelines for the selection of students to attend the centres; how to give students experiences of "learning to do and doing to learn"; how to relate theory and practice; how to involve the community in the agricultural education programme; how to teach students to solve agricultural problems; and how to use the Centres to complement the agricultural extension programmes conducted by the Ministry of Agriculture.

4. The staff for supervision of the Agricultural Science Programmes should hold Graduate (B.Sc.) Degrees in Agricultural Education.
5. Workshops for primary teachers should be continued to improve their abilities to teach agriculture. The proposed Agricultural Centres should become the sites for such workshops. The workshops should include time for teachers to develop instructional materials for use in their own classrooms, to strengthen the teaching of agriculture.
6. Select from present (unqualified) teachers of agriculture, persons to be upgraded through additional training in agriculture.
7. The Feeding and Nutrition Programme currently conducted with the Food and Nutrition Council should be continued. The additional cooperation with the Ministry of Agriculture through the 4-H Clubs for production of garden crops as part of the feeding

programme, should be continued and expanded.

8. When the Help Yourself: A Career Guidance Booklet is revised, it should include a section on careers in agriculture.

9. A systematic follow-up study should be made at least every five years to study the occupational placement and educational attainments of the persons who have studied agriculture at each of the levels of schooling.

C. Ministry of Agriculture

Human resource development is a key to (a) the attainment of the goals for food self-sufficiency and (b) expansion of both the quality and quantity of agricultural products for export. It is recommended that the Mirabeau Agricultural Training School be one of the strong links in the agricultural education sytem.

1. The twin goals for the Mirabeau Agricultural Training School (MATS) i.e. the preparation of farmers and the preparation of frontline extension workers, should be expanded to include teachers of agriculture for the schools.

2. Eventually the MATS should become a Diploma Level School.

3. The curriculum for the preparation of farmers, should be reviewed with special attention given to the kind of decisions a farmer has to make regarding which crops and livestock to produce, conservation of soil, credit for agricultural inputs, marketing, community

involvement, and family. The factors of (a) age of students (b) availability of farmland and (c) length of training programme should be given special consideration when revising the curriculum and the minimum qualifications for intake of students.

4. The Faculty at the MATS should hold Graduate (B.Sc.) Degree or equivalent in agriculture. There should be three permanent lecturers in addition to the principal.
5. The intake of students for the two-year programme should be 15-20 per year. (Their preparation is for employment in agri-business, Government, schools, and self-employed).
6. The needs of teachers in the schools should be considered when determining the quantity of leaflets, pamphlets, posters, etc. to be prepared for the Agricultural Extension Service.
7. The preparation and distribution of plant materials to the schools should be continued so as to ensure the use of appropriate, adapted varieties of plants in the instructional programmes.
8. The Agricultural Extension agents should provide to the schools within their districts, some technical assistance on school gardens and other crops and livestock. It is recommended that this assistance be directed primarily toward the teachers through workshops in cooperation with the Ministry of Education and through the use of demonstrations.

9. When special seminars are conducted to upgrade MOA staff, invitations should be extended, as appropriate to the Ministry of Education to send Supervisors and Teachers. This is one of the essential ways to keep current, the agriculture which is taught.

Implementation Strategy

Human resource development, as mentioned previously, is a key to achieving agricultural devleopment, just as it is a key to industrial, social and economic development. However, those who have received the education must be able to make their contributions to development, through service in schools, Government posts, and the private sector. This means, in part, that the Government for staffing positions in schools, in extension, in projects etc. must be able to compete favourably with other potential employers for the services of these competent individuals. Not only must they be trained, but ways must be found to keep them in service for Grenada.

1. Scholarships should be provided for upgrading to the B.Sc. level.
   (a) Five persons from the Ministry of Education, who work with the Agricultural Education Programmes.
   (b) Four persons from the Ministry of Agriculture, who are (or will be) permanent staff for the Mirabeau Agricultural Training School.

NOTE: Persons to be selected may now be inservice with excellent records of performance. In addition, it

may be necessary to consider "equivalency" to B.Sc. Degree in order to get persons with the appropriate dedication to teaching in Grenada.

2. A consultant with appropriate experience in curriculum planning should be secured to assist with the development of the curriculum (syllabus) for the (all age) primary schools. This step is essential before further development of the Teacher Education Programme and for the development of instructional materials.

3. A team consisting of representative from the Ministry of Education and the Ministry of Agriculture, should be formed to add additional guidelines for the development of the proposal for Agricultural Training Centres. One or two Consultants should be secured to work with the team appointed from the two Ministries. There probably should be a Stage One for the proposal development, followed by Stage Two, during which one pilot Centre would be established.

NOTE: The National goals for both educational and agricultural development should be carefully considered in the planning for selection of sites for the centres, the kinds of crops and livestock to be included in the instructional programme, the number and level of students to be served, the relationship of the Centres to the community, etc..

4. The Principal for the Maribeau Agricultural Training School should have a 4-6 week study tour to observe

other post secondary institutions which teach agriculture. Emphasis should be placed on observations related to curriculum planning, instructional methods, and staff development.

5. Two persons, one from the Ministry of Education and one from the Ministry of Agriculture should take together, a 7-8 week study tour to observe the interrelationship of agricultural development and education. (See attached brochure which describes a 6 week tour in Taiwan during July-August, 1985).

6. The Principal and one or more of the staff for the MATS should participate in a workshop designed to develop the curricula and courses for technical education in agriculture. The Caribbean Agricultural Extension Project should be requested to sponsor such a workshop of 1-2 weeks duration.

APPENDIX A

List of Titles of Documents Reviewed by the Consultant

1. Final Report on Grenada Agricultural Census 1981. St. George's, Grenada: Ministry of Planning, August 31, 1982, 117 pp. (Prepared by Joseph Campbell, Agricultural Planner, OAS Technical Assistance Mission, Ministry of Planning, and Catherine Henry, Economist, Ministry of Agriculture.)

2. Johnson, Jacinta C. Help Yourself: A Career Guidance Booklet. An Organization of American States (OAS) sponsored project, May 1984, 125 pp.

3. Fernando, W.D. Grenada School Directory and Educational Statistics, 1982-83. St. George's, Grenada: Ministry of Education, Statistical Unit, 1984, 60 pp.

4. Henderson, T.H. Trained Manpower Needs in the Agricultural Sector Leeward and Windward Islands. St. Augustine, Trinidad: The University of the West Indies, Department of Agricultural Extension, 1976, 59 pp.

5. "National In-service Teacher Education Programme: Agricultural Science" (mimeographed description of the program including sub-topics of objectives, components of the programme, and a course outline) by Faculty of Agriculture Teachers' College, St. George's, Grenada, revised 1984, 7 pp.

6. "A Proposal for the Establishment of Agricultural Training Centres throughout Grenada." St. George's, Grenada: Ministry of Education, 1983-84, 6 pp. (mimeographed)

7. Edmunds, J. E. Report to CIDA/Canada Training Awards Project Coordinator: Training Needs in Agriculture in the Leeward and Windward Islands. June 1983, 53 pp. plus appendix.

8. "Career Guidance Showcase, 1984", Grenada Technical and Vocational Institute. (A 5-page, two-fold brochure with information about the Institute, entry qualifications, and courses in each of the programme areas within the two divisions of business education and technical education.)

9. "Guidelines for Prospective New Students," Institute for further Education, September 1984. (Included lists of subject requirements, dress code, extra curricular activities, enrollment form, book list for courses, and a weekly timetable for courses by daily periods.)

10. "Agricultural Science Vocation Course," Ministry of Education, August 27-31, 1984, (An outline of the courses taught to the participating teachers, one per school, and timetable for the five days of lectures, discussions, fields trips and other scheduled activities.)

11. Selected data from reports on the results of G.C.E. "0" Level agricultural science examinations for the years 1980, 1981, 1982, 1983, and 1984; and the results from the agricultural science section in the primary School Leaving Examination, 1984. Provided by the Statistical Unit, Ministry of Education.

12. Education and Agricultural Development, (Basic Study No. 15), Paris: UNESCO, Freedom From Hunger Campaign (FFHC), 1964, 62 pp.

13. World Development Report 1982, New York: Oxford University Press for the World Bank, 1982, 172 pp.

APPENDIX B

Present Staffing and Training Needs in Grenada:
A Comparison of Two Studies...1974-75 and 1983

Henderson Study...Data Collected December 1974-April 1975		Edmunds Study...Data Collected February-May, 1983	
Present Staff Resources:		**Staff in Post:**	
Graduate	6	22	Graduate
Intermediate	31	102	Local Trained
Untrained	50	11	Overseas Trained
Vacancies:		**Vacancies:**	
Graduate	8	11	Graduate
Intermediate	21	16	Intermediate
Additional 10-Year Needs:		**Staff in Training:**	
Graduate	9	15	Graduate
Intermediate	91	19	Intermediate
Projected Total 10-Yr Needs:		**Projected 3-Yr Training Needs:**	
Graduate	17	41	Graduate
Intermediate	132	98	Intermediate

Sources: Henderson, T.H. Trained Manpower Needs in the Agricultural Sector Leeward and Windward Islands. St. Augustine, Trinidad: The University of the West Indies, Department of Agricultural Extension, 1976, p. 58.

Edmunds, J.E. Report to CIDA/Canada Training Awards Project Coordinator: Training Needs in Agriculture in the Leeward and Windward Islands, June 1983, p. 19.

APPENDIX C

Selected Information from Examinations in Agricultural Science

Twenty-seven institutions were listed as having students take the GCE "O" Level agricultural science examination one or more years during the five-year period 1980-1984. Seven of the schools had a significant number of students pass the examination, as shown below.

School Name	1980	1981	1982	1983	1984
Bishop's College	1	0	2	7	9
Happy Hill Secondary	-	-	-	-	-
Grenada Boys Sec. Sch.	14	28	5	6	8
Grenada Boys Sec. Sch. Ext.	0	0	-	-	-
Grenada S.D.A. Comp.	-	-	5	9	8
McDonald College	14	21	20	38	14
St. Andrews Anglican Sec. Sch.	-	-	2	0	4
St. David's Secondary	-	2	6	6	5
St. John's Christian Sec. Sch.	6	9	-	11	2
St. Joseph's Convent (Grenville)	-	6	5	21	26
St. Rose Convent	-	-	-	5	3
Wesley College	-	-	1	2	0
Presentation College	-	-	1	-	-
Carreacou Private Candidates	-	1	1	-	-
Hillsborough Jr. Sec.	-	-	0	-	-
St. David's Private	-	0	1	-	-
Grenville (Private)	-	-	4	-	-
Grenada Boys' Sec. (Private)	1	-	1	-	-
Sauteurs Private	-	-	1	-	-
Grenville Junior Sec.	-	0	2	-	-
L'Wanga College-Grenville (RT)	1	-	-	-	-
Sauteurs Comm. Ctr.	-	4	-	-	-
Cocoa Grove-Gouyave	-	3	-	-	-
Grenada Technical Center	0	-	-	-	-
St. Charels L'Wanga Colleges (Private)	4	-	-	-	-
Sauteurs' Foresters Court	2	-	-	-	-
Cocoa Grove (Private)	2	-	-	-	-
Private Candidates	-	-	-	-	7

Note: (-) means there were no entries; (0) means there were one or more entries but no passes.

An overall five-year summary of schools, entries and passes for the GCE "0" level agricultural science as shown below indicates an increase in the number of entries to take the examination but little change in the proportion of passes.

GCE "0" Level Examination: Number of Schools, Entries, Passes and Number Receiving Various Grades

	Number										%
Year	Schools	Entries	Passes	A	B	C	D	E	U	X	Pass
1984	13	281	86	6	29	51	43	61	78	13	32
1983	10	212	105	7	42	56	46	33	23	5	48
1982	16	214	57	3	19	35	31	32	81	13	28
1981	13	161	75	4	23	48	14	30	48	8	49
1980	10	167	44	1	7	36	20	33	59	11	28

Source: Compiled from reports prepared by Ministry of Education.

Note: 1. Students who scored A, B, or C received "Passes". "X" represents the number who did not take the examination even though they had entered.

2. The % Pass was calculated as follows:

$$\frac{\text{Number of Passes}}{\text{(No. Entries)-(No. "X")}} \times 100 = \%$$

APPENDIX D

Selected Information about Education in Grenada
Taken from the Grenada School Directory and
Educational Statistics, 1982-83

I. Educational Institutions

Kind	Nos.	Enrollment
Day Care Centres	8	233
Pre-School institutions	66	2674
Primary Schools		
Government	16	4771
Assisted	41	15513
Private	7	NA
Junior Secondary	4	1358
Senior Secondary:		
Government	2	1055
Assisted	15	4028
Tech. & Voc. Institutes	1	172
Commercial & Domestic Art Institute	1	NA
Institute for Further Education	1	171
Mirabeau Farm School	1	39
School of Nursing	1	138
School of Pharmicist	1	10
Special Education	2	57

Note: The primary schools are "all-age" primary schools. They enroll classes from Infant I to Senior III providing a total of eleven years general education. The age of admission is five years. The schools have three departments: Infant, Junior, and Senior. The students enrolled in the senior department are those who failed the school leaving examination from the junior department.

II. The children proceed through the various levels at a slower than one-year/level pace.

Infants A	92% are in the age range of 5-6 years
Junior I	82% are in the age range of 7-8 years
Junior V	64% are in the age range of 11-12 years
Senior II	41% are in the age range of 13-14 years

III. The average attendance and enrollment data for 1982-83 were reviewed. Most of the primary schools had an average attendance of under 400 and an enrollment of under 500. The secondary schools generally had an enrollment of under 500.

Grenada Public and Assisted Primary and Secondary Schools: Numbers Enrolled and Average Attendance, 1982-1983

Range in Numbers of Students	Number of Schools			
	Primary		Secondary	
	Ave. Atten.	Enroll.	Ave. Atten.	Enroll.
Less than 100	4	4	1	0
100-199	15	10	2	1
200-299	11	7	1	5
300-399	13	13	-	4
400-499	6	11	-	3
500-599	4	6	-	2
600-699	1	3	-	1
700-799	1	2	-	1
800 & Over	0	1	-	0
Not Available	9	7	16*	3
Total	64	64	20	20
Ave. Number	16,335	20,284	1043 (Jr.)	1358 (Jr.) 4232 (Sr.)

* Average attendance data were not reported for the senior secondary schools.

IV. Enrollment in All Government Owned, Assisted and Maintained Schools by Grade and Sex, 1982-83.

Grade	Total	Female	% Female
Infants A	2561	1186	46.3
Infants B	2421	1159	47.9
Total	4982	2345	47.1
Junior I	2521	1231	48.8
Junior II	2529	1205	47.6
Junior III	2444	1152	47.1
Junior IV	2413	1147	47.5
Junior V	2407	1177	48.9
Total	12314	5912	48.0
Form I	1538	728	47.3
Form II	1085	522	48.1
Form III	365	172	47.1
Total	2988	1422	47.6

Note: 1. There is a great decrease in the enrollment from Junior V to Form I; and from Form II to Form III.

2. The proportion of female students enrolled remains essentially constant from Infant A to Form III.

V. The trend for enrollment in schools at all three levels primary, juniors and seniors) has been downward.

	Number Enrolled				
	Primary Schools				Secondary Schools
Year	Primary	Junior	Senior	Total	
1970-71	7,658	17,480	5,024	30,522	3,230
1973-74	6,517	16,416	5,197	28,129	NA
1976-77	6,104	14,155	5,035	25,294	5,053
1979-80	5,801	12,919	3,701	22,421	5,712
1982-83	4,982	12,314	2,988	20,284	5,590

Note: The decline in enrollment in the primary schools over the 12 year period was 34.9% at the primary level, 31.0% at the junior level, 40.5% at the senior level, and 33.5% overall. However, the enrollment in the secondary schools increased by 73.1% between 1970-71 and 1982-83. The enrollment in 1982-83 was down 2.1% from the high in 1979-80. (The highest enrollment reported in the secondary schools was 6050 in 1978-79.)

IV. Data on school leavers.

Most of the school leavers from the primary schools went to other schools; from junior secondary schools, approximately 32 percent went to other schools and 28 percent went to occupations; and no data were available regarding those who left from the senior secondary schools.

School Leavers 1982-83

	Primary Schools	Junior Secondary Schools
Total leavers	3994	321
To other schools	2629 (65.8%)	102 (31.7%)
To occupations	174 (4.4%)	90 (28.0%)
(Including farms & farm labor)	(22)	(2)
To emigration	355 (8.9%)	44 (13.7%)
To unemployed	430 (10.8%)	25 (7.8%)
Died	6 (0.2%)	
Unknown	400 (10.0%)	60 (18.7%)